

Name _____ Date _____ Hour _____

Semester 1 Exam Review- Chapter 3

Solve the following equations. **SHOW ALL WORK!**

3.1 Solving Equations Using Addition and Subtraction

1. $-32 + r = -65$

2. $54 - (-p) = -21$

3.2 Solving Equations Using Multiplication and Division

3. $\frac{d}{-8} = -13$

4. $\frac{4}{5}v = 40$

3.3 Solving Multi-Step Equations

5. $4x + 5 = 25$

6. $3x + 9 = 27$

7. $-5n + 18 + 3n = 34$

8. $-3m + 21 + 5m + 21 = -6$

9. $5p - 2(p - 2) = 11$

10. $4r - 2(3 - r) = 13$

11. $\frac{2}{5}x - 1 = 12$

12. $7 - \frac{1}{3}x = 21$

13. $2x - |-5| = 23$

$$14. -4n + 10 + 2n = 18$$

$$15. 4x + 15 - 2x + 15 = -4$$

$$16. 5y + 2(y + 2) = 11$$

3.4 Solving Equations with Variables on Both Sides

$$17. 6z + 3 = 8z - 5$$

$$18. 2x + 5 = x + 2$$

$$19. h - 3 = -h + 5$$

$$20. 3 - 4z = -5 + 8z$$

$$21. 3x - 4 = x - 2$$

$$22. 14c - 12 = 2(7c - 4)$$

$$23. 5f - 3 = f - 6$$

$$24. 5x + 14 - 2x = 9 - (4x + 2)$$

$$25. 3x + 17 - 5x = 12 - (6x + 3)$$

$$26. \frac{1}{2}(12 - 2x) - 4 = 5x + 2(x - 7)$$

$$27. 5(6 - 3x) = 3(5x - 10)$$

$$28. 5(x + 1) + 3 = 2(x + 4) + 3x$$

3.7 Formulas and Functions

Rewrite the equation so that y is a function of x .

$$29. 5x - 2y = 5$$

$$30. 4x - 3(y - 2) = 15 + y$$

3.8 Rates, Ratios, and Percents

31. Brandon drives 119 miles in one week. How many miles does he drive in one day on average?

32. A new iPad retails for \$499 but is on a sale for 15% off. Find the sale price of the iPad before tax.

33. A motorist travels 337 miles while using 13.7 gallons of gasoline. What is the average mpg on this trip?

34. Sales tax in Milwaukee County is 5.6%. Find the total price paid for a \$1,250 laptop including tax.

FOR ADDITIONAL CHAPTER 3 REVIEW PLEASE REFER TO ANY OR ALL OF THE FOLLOWING:

- 📖 Your classroom notes and examples
- 📖 Corresponding book sections
- 📖 Chapter 3 Review on pages 190 - 192
- 📖 Chapter 3 Test on page 193
- 📖 Chapter 3 Extra Practice Problems on page 799

STUDENTS CAN CHECK ANSWERS IN THE BACK OF THE BOOK. IF ANSWERS ARE NOT AVAILABLE IN THE BACK OF THE BOOK, STUDENTS ARE ENCOURAGED TO USE THE TEACHER BOOK TO CHECK ANSWERS BEFORE TAKING THE SEMESTER EXAM.